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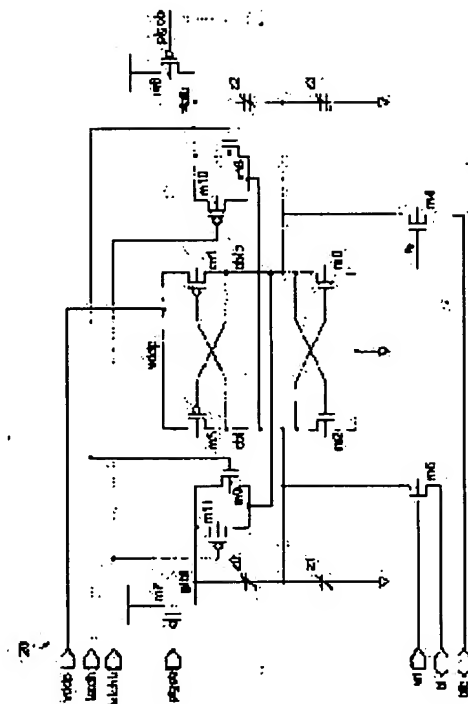
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(54) FERROELECTRIC NON-VOLATILE LATCH

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a non-volatile ferroelectric latch whose performance is improved.

SOLUTION: A non-volatile ferroelectric latch 20 is provided with sense amplifiers m0, m1, m2, and m3 having at least one input/output connected with a bit line node cb1, a ferroelectric storage capacitor z0 connected between a plate line node plb1 and a bit line node cbl, and a load element z1 connected with the bit line node cbl. This sensor amplifier includes a second input/output connected with a second bit line node cblb. The latch circuit 20 is provided with a second ferroelectric storage capacitor z2 connected between the second plate line node plblb and the second bit line node cblb and a second load element z3 connected with the second bit line node cblb. The load element includes a dynamic switching ferroelectric capacitor, a static non-switching ferroelectric capacitor, a linear capacitor, and a resistance load.



LEGAL STATUS

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